

Claims

[c1]

An organic electroluminescent device, comprising:

a substrate;

electrodes including a first electrode formed on the substrate, and a second electrode disposed to be spaced from the first electrode;

a function layer formed between the electrodes and including a luminous layer; and

a buffer layer included in the second electrode and disposed to be spaced from the function layer.

[c2]

The organic electroluminescent device according to claim 1, wherein the buffer layer is formed in a distance of 20 nm or less from an upper end surface of the function layer.

[c3]

The organic electroluminescent device according to claim 1, wherein the buffer layer contains an oxide.

[c4]

The organic electroluminescent device according to claim 1, wherein the buffer layer contains aluminum oxide.

[c5]

The organic electroluminescent device according to claim 1, further comprising:

a layer disposed adjacently to the function layer and containing any of an alkaline metal element and an alkaline earth metal element.

[c6]

A method for manufacturing an organic electroluminescent device, the method comprising the steps of:

forming a first electrode on a substrate;

forming, on the first electrode, a function layer including a luminous layer;

forming a second electrode above the luminous layer; and

forming a buffer layer in a distance of a predetermined value or less from an upper end surface of the function layer.

[c7]

The method for manufacturing an organic electroluminescent device according to claim 6, wherein the buffer layer contains an oxide, and the step of forming a buffer layer includes any of a step of oxidizing the second electrode and a step of depositing the oxide thereon.

[c8]

The method for manufacturing an organic electroluminescent device according to claim 6, wherein the buffer layer contains aluminum oxide.

[c9]

The method for manufacturing an organic electroluminescent device according to claim 6, further comprising the step of: depositing a layer containing any of an alkaline metal element and an alkaline earth metal element adjacent to the function layer.

[c10]

An organic electroluminescent display apparatus including a plurality of organic electroluminescent devices formed on a substrate, wherein the organic electroluminescent device includes:

electrodes including a first electrode adjacent to the substrate and a second electrode disposed to be spaced from the first electrode;

a function layer formed between the electrodes and including a luminous layer; and

a buffer layer included in the second electrode and disposed to be spaced from the function layer.

[c11]

The organic electroluminescent display apparatus according to claim 10, wherein the buffer layer is formed in a distance of 20 nm or less from an upper end surface of the function layer.

[c12]

The organic electroluminescent display apparatus according to claim 10, wherein the buffer layer contains an oxide.

[c13]

The organic electroluminescent display apparatus according to claim 10, wherein the buffer layer contains aluminum oxide.

[c14]

The organic electroluminescent display apparatus according to claim 10, further comprising:

a layer disposed between the luminous layer and the second electrode and containing any of an alkaline metal element and an alkaline earth metal element.